

BILY, Matej, inz.

Multifrequency compacting of concrete mixtures. Stav cas 12
no.3:180-193 '64.

1. Dopravstav, Bratislava.

BILY, M., inz. (Bratislava)

Calculation of the dynamic forces in the bucket hoisting mechanism
of excavators. Strojirenstvi 14 no.7:491-496 JI '64.

KOZAK, Jaromir, inz.; BILY, Petr, inz.

Shipbuilding in Czechoslovakia. Doprava no.4:291-299 '63.

MINENKO, V.I., kand. tekhn. nauk; ROMAS'KO, S.D., kand. geologo-mineralogicheskikh nauk; BILYACH, L.I., inzh.

Crystal chemistry techniques for checking magnetic treatment of feed water. Teploenergetika 10 no.9:48-50 S '63.

(MIRA 16:10)

1. Khar'kovskiy inzhenerno-ekonomicheskii institut.
(Feed-water purification)

KUKHTEVICH, I.L.; BILYAK, A.I.

Structure of metal derivatives of pheophytin(a+b); an electronographic study. Biofizika 10 no.3:424-428 '65. (MIRA 18:11)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut i Dnepropetrovskiy gosudarstvennyy universitet. Submitted April 3, 1964.

KUKHTEVICH, I.L.; BILYAK, A.I.

Electronographic study of chlorophyll analogs. Ukr. khim. zhur.
31 no.9:934-935 '65. (MIRA 18:11)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut i
Dnepropetrovskiy gosudarstvennyy universitet.

FRIDKIN, V.M.; DELOVA, A.I.; GERASIMOVA, T.N.; BILYALTDINOV, Kh.S.

Some results of the study of electronic photography and electrostatic printing. Zhur.nauch.i prikl.fot.i kin. 2 no.4:286-292
Jl-Ag '57. (MIRA 10:7)

1. Nauchno-issledovatel'skiy institut poligraficheskogo mashinostroyeniya.

(Xerography)

BILYALOV, N.S.; OBLAK, A.D.

Investigating chemical stability of alloyed cast irons. Trudy
KAI no.70:32-38 '62.

(MIRA 18:4)

"APPROVED FOR RELEASE: 06/08/2000

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ACCESSION NR: AR5008849

"APPROVED FOR RELEASE: 06/08/2000

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APPROVED FOR RELEASE: 06/08/2000

CIA-RDP86-00513R000205320005-4"

L R4144-66 ENT(d)/ENT(l)/ENT(m)/T-2/EXP(h) GW

ACC NR: AT6018249

SOURCE CODE: UH/3021/64/000/259/0176/0179

AUTHORS: Bilyalov, R.; Burkova, M. V.; Dzhordzhio, V. A.; Dzhurayev, A. D.; Levina, P. Z.; Myalkovskaya, N. M.; Neushkin, A. I.; Petrosyants, M. A.; Eyvazova, I. L.; Romanov, N. N. 55

ORG: none *

TITLE: Proposal for the construction of a map AT₂₅₀ to improve the meteorological service for aircraft TU-104 12

SOURCE: * Tashkent. Universitet. Nauchnyye trudy, no. 259. Fizicheskiye nauki, no. 23, 1964. Fizika atmosfery i aviatsionnaya meteorologiya (Physics of the atmosphere and aviation meteorology), 176-179

TOPIC TAGS: atmosphere, weather map, weather forecasting, aircraft, meteorology

ABSTRACT: The necessity for constructing an AT₂₅₀ map is pointed out. The authors note that in the majority of cases, the flight height of the TU-104 aircraft is 10.5 km, a height that corresponds to an absolute topography of 250 millibars. It is argued that very little additional effort would be called for from existing weather forecasting stations for the construction of the AT₂₅₀ weather maps since these stations already routinely broadcast information on AT₂₀₀ and AT₃₀₀. Examples of

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L 44114-66

ACC NR: AT6018249

AT₂₅₀ maps are given. The maps were constructed by interpolating between the data for AT₃₀₀ and AT₂₀₀ (see Fig. 1).

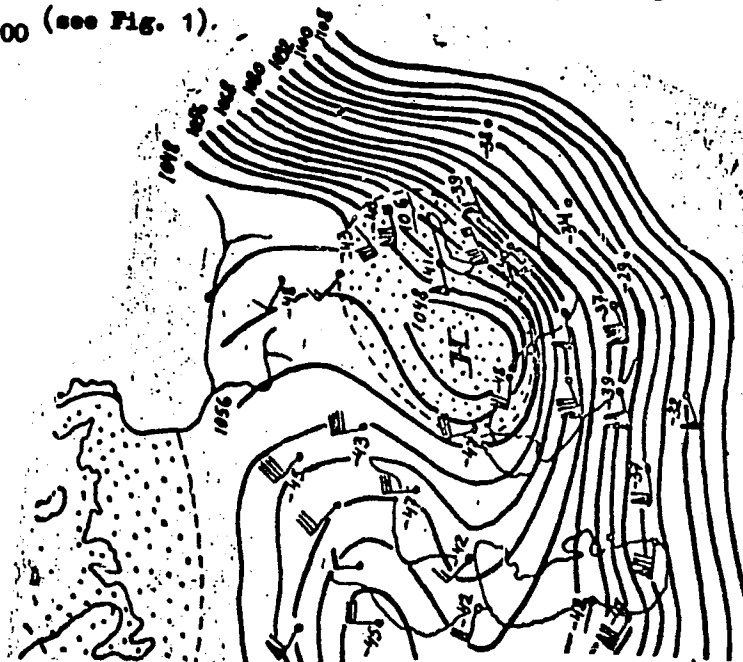


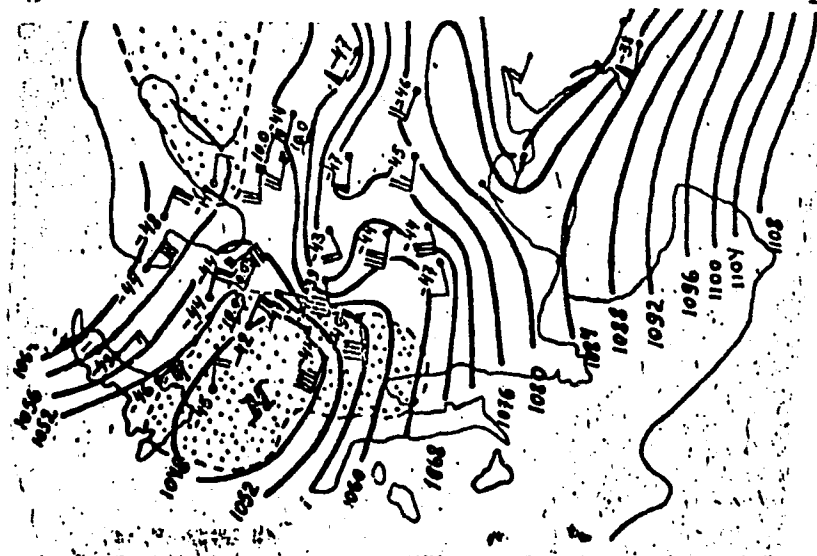
Fig. 1. Map AT₂₅₀ at 3 p.m. on 3 August 1960. Dotted region indicates the stratospheric zone. Squares indicate reports from aircraft crews.

Card 2/3

Card 3/3

ACC NR: AT6018249

From Card 2/3



It is mentioned that the World Meteorological Organisation also recommends a regular construction of AT₂₅₀ maps. Orig. art. has: 2 graphs.

SUB CODE: 04/ SUBM DATE: none
Card 3/3

L 45509-66 EWT(1) GW

ACC NR: AT6018238

SOURCE CODE: UR/3021/64/000/259/0061/0067

AUTHOR: Bilyalov, R.

ORG: none

44
B+1

TITLE: Characterization of the winds in the wind-pause layer over the southern SSSR during the International Geophysical Year and the MGS

SOURCE: Tashkent, Universitet. Nauchnyye trudy, no. 259. Fizicheskiye nauki, no. 23, 1964. Fizika atmosfery i aviatsionnaya meteorologiya (Physics of the atmosphere and aviation meteorology), 61-67

TOPIC TAGS: atmospheric circulation, atmospheric wind field, jet stream, upper atmosphere, atmospheric movement, *wind, wind direction*

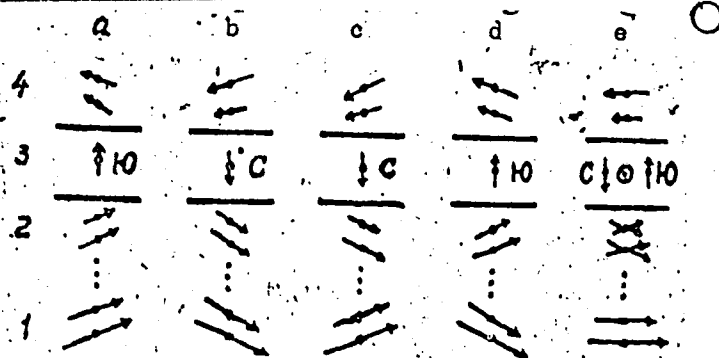
ABSTRACT: Results of the investigation of the wind character in the wind-pause layer over the territory between 35°--53° of northern latitude and 39°--80° of eastern longitude are reported. The study was based on data collected during the IGY and IQSY (from July 1, 1957 to December 31, 1959). It was established that:
1) transformation of a western into an eastern wind takes place by the reversal of the wind through the south or north, but seldom through a zero point (calm);
2) character of this transformation is determined mainly by the circulation in the upper troposphere or lower stratosphere; 3) prevalence of the wind reversal via south in the western section and via north in the eastern section of the

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L 45509-66

ACC NR: AT6018238

Fig. 1. Diagram of the wind reversal depending upon the direction of currents underneath: a, b, c, d, e - five types of reversal; 1, 2, 3, 4 - directions of currents on the level of the maximal wind, below, and above the wind-pause layer, correspondingly.



investigated territory is explained by peculiarities of the atmospheric circulation in the upper troposphere during the 1957-59 summers; 4) when the direction of the jet streams is purely western, wind reversal takes place via south as well as via north; 5) the character of the wind reversal in the wind-pause layer can be described by 5 types, depending upon the currents in the upper troposphere and lower stratosphere, as shown in Fig. 1. Orig. art. has: 1 table and 3 figures.

SUB CODE: 04/SUBM DATE: none/ ORIG REF: 002

hs

Card 2/2

BILYALOV, R.F.

Conformal groups of transformations in gravitational fields. Dokl.
AN SSSR 152 no.3:570-572 S '63. (MIRA 16:12)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-Lenina.
Predstavleno akademikom V.A.Fokom.

BILYALOV, R.F.

Transitive conformal groups of transformations. Uch. zap. Kaz. un.
123 no.12:3-20 '63. (MIRA 17:11)

L 41396-68 $\text{EWP}(\pi' \text{EEC}(t)/\text{EWT}(1)/t$ $P_{\alpha-4}/P_{1-4}/P_{\alpha-4}/P_{\alpha-4}$ $\cdot \text{IP}$

THE CORRESPONDING RIEMANNIAN SPACE. IT IS SHOWN THAT IN GRAVITATIONAL THEOR

SUB CODE: MA, GP

ENCL: 00

BILYALOVA, V. B.

"Diagnosis of Recurrent Typhus During the Apyretic Period," Sov. Med.,
No.8, 1949

Moscow Inst. Epidemiology, Microbiology and Infectious Diseases im. Mechnikov

BILYAMINOV, Fedor Yakovlevich; GREBTSOV, P.P., red.; TRUKHINA, O.N.,
tekhn. red.

[Over-all mechanization of corn harvesting] Kompleksnaia me-
khanizatsiia uborki kukuruzy. Moskva, Sel'khozizdat, 1962.
38 p. (MIRA 15:7)

1. Sekretar Nikopol'skogo gorodskogo komiteta Kommunistiche-
skoy partii Ukrainy Dnepropetrovskoy oblasti (for Bilyaminov).
~~(Nikopol' District—Corn (Maize))—Harvesting~~

STEPHEN, D.S.

B. T. R.
Vol. 3 No. 3
March 1954
Chemical Engineering

2976* Phase Composition of Certain Calcium-Chromium Slags and Particularly the Characteristic Water-Soluble Calcium in Them. (Russian.) D. S. Biliukin and V. V. Lapin. *Doklady Akademii Nauk SSSR*, v. 91, no. 4, Aug. 1, 1953, p. 911-914 + 1 plate. Various Cr containing slags were investigated. Micrograph, tables, 6 ref.

BILVANSKY, F.M.

"The Microorganisms of Spices," Mikrobiol., 13, No. 4, 1944
(Chair of Technology Control of Production
Technol. Tinned Food Ind. , Odessa

BILYANSKIY, F. M.

"The Influence of the Medicinal Mud of Kuyal'nitskiy Estuary on the Exogenous Microflora", Mikrobiol Zhur, Kiev, Vol. 12, No. 4, pp 95-98, 1950.

"APPROVED FOR RELEASE: 06/08/2000

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APPROVED FOR RELEASE: 06/08/2000

CIA-RDP86-00513R000205320005-4"

Chem Stability of antibiotics in medicinal muds. F. M. Bilyanski and A. A. Tartakovsky (Ukrain. Sci. Research Inst. Health Resorts, Odessa). *Mikrobiologiya* 25, 208-10 (1958).—Pure preps. of penicillin, gramicidin S, microcide, streptomycin, and antibiotics from organisms occurring in muds were slowly inactivated in the presence of sample muds. Evidently these muds are antagonistic to antibiotics, whether added from external sources or elaborated in the muds. Julian F. Smith

BILYANSKIY, M., inzh.

Roller brush using pressure feeding of paint. Mor. flot 19 no.2:
35-36 F '59. (MIRA 12:3)

1. Tsentral'noye proyektno-konstruktorskoye byuro No.2 Ministerstva
morskogo flota SSSR.
(Painting, Industrial--Equipment and supplies)

BILYANSKIY, M.; NIKUSHKIN, L.

Advanced practices in ports and ship repairing yards. Mor. flot.
24 no.8:31-32 Ag '64. (MIRA 18:9)

1. Glavnyy spetsialist Gosudarstvennogo proyektno-konstruktorskogo
i nauchno-issledovatel'skogo instituta morskogo transporta (for
Bilyanskiy).

RYVKIN, A.I., ~~zasluzhennyi~~ vrach UkrSSR; BILYANSKIY, S.F.

Severe anaphylactic shock following the introduction of penicillin. Vrach. delo no.11:139-140 N°63 (MIRA 16:12)

1. Terapevticheskoye otdeleniye (zav. A.I.Ryvkina) Nikolayevskoy oblastnoy bol'nitsy.

KAKHANA, A.M.; BILYANSKIY, S.F.

Methodology of temporal oscillography. Sov. med. 28 no.7:127-129
(MIRA 18:8)
Jl '64.

2. Meditsinskaya sanitarnaya chast' (glavnyy vrach K.M.Iyubimova)
Nikolayevskogo sudostroitel'nogo zavoda imeni Nosenko.

TANKHEL'SON, Grigoriy Vul'fovich; ZAGORSKAYA, Yelena Petrovna; BILYANSKIY,
Milya Khaimovich; KOGAN, N.D., nauchnyy red.; FOMICHEV, A.G.,
red.; ERASOVA, N.V., tekhn.red.

[Reinforced concrete floating docks] Zhelezobetonnye plavuchie
doki. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1960.
195 p. (MIRA 14:4)

(Dry docks)

BIL'YANTS, A.

Way of achieving planned mine output. Mast. ugl. 3 no. 8:3 Ag '54.
(MIRA 7:9)

1. Nachal'nik shakhty No. 19 kombinata Stalinugol'.
(Coal mines and mining)

BILYASHEVS'KIY, M.M.

Improved types of stone-filled spillway dams. Visnyk AN URSR
26 no.5:59-60 My '55. (MIRA 8:8)

(Dams)

BILYASHEVSKIY, M.M. [Biliashivs'kiy, M.M.], doktor tekhn.nauk; OLIYNIK,
O.Ya. [Oliinyk, O.IA.], kand.tekhn.nauk; TKACHENKO, V.O., inzh.

Testing the work of a seepage preventing curtain of a reservoir shore.
Visti Inst.gidrol.i gidr.AN URSR 18:93-102 '61. (MIRA 15:3)
(Seepage) (Reservoirs) -

~~BILYAYETS~~ Yuriy Vlasovich; ASTAKHOV, A.V., otv.red.; SABITOV, A.,
tekhn.red.; CHANTSEVA, G.M., tekhn.red.

["Ural-2s" coal cutter-loader] Ugol'nyi kombain "Ural-2c".
Moskva, Ugletekhnizdat, 1959. 68 p. (MIRA 12:11)
(Coal mining machinery)

BILYAYEV, G.I. [Biliaiev, H.I.], doktor tekhn. nauk; PONOMARCHUK, S.M.

Increasing the abrasive resistance of enamel coatings. Khim.
prom. [Ukr.] no.3:30-32 JI-S '63. (MIRA 17:8)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut.

L 18880-66 EWT(1)/EWT(m)/EWP(t) IJP(c) AT/JD
 ACC NR: AP6007802 SOURCE CODE: UR/0185/66/011/002/0219/0221
 AUTHOR: Bilyayev, O. M.; Lyubchenko, O. V.; Potykevych, I. V.
 ORG: Institute of Semiconductors, AN URSR, Kiev (Instytut napivprovidnykiv AN URSR) 21, 44. 55 65 63 B
 TITLE: New high-sensitivity photoconductor CdIn₂Te₄ 27
 SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, No. 2, 1966, 219-221
 TOPIC TAGS: photoconductivity, cadmium compound, optic transmission, forbidden band, electric conductivity, temperature dependence
 ABSTRACT: Although CdIn₂Te₄ has been synthesized and its semiconductor properties discovered some time ago, no measurements of its photoelectric properties have been made before. The authors synthesized six n-type single crystals of this substance, measuring 1 x 1 x 0.5 mm, by a procedure described elsewhere (Tezisy dokladov 3-go soveshchaniya po rostu kristallov [Abstracts of Papers of the 3rd Conference on Crystal Growth], Moscow, AN SSSR, 1963, p. 58). The transmission and photoconductivity spectrum were measured with a monochromator (IKS-12). The photocurrent shows a maximum near 1.04-1.06 μ, and decreases much more slowly in the short-wave side than in the long-wave side. The width of the forbidden band, as determined from the drop in photosensitivity at the long-wave edge is 1.09-1.12 ev, is in
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ACC NR: AF6007802

agreement with results by others. Change in temperature from -150 to 25C does not change the shape of the spectrum, but shifts it towards shorter wavelengths. The dark conductivity increases with increasing temperature. However, the width of the forbidden band determined from the plot of the dark photoconductivity against the reciprocal of the temperature (0.83-0.85) is lower than obtained from the photo-current curve. All crystals had a slightly sublinear lux-ampere characteristic, $\sigma \sim I^\alpha$, with $\alpha = 0.9$ at -150C and ≤ 0.7 at 25C. It is concluded that CdIn_2Te_4 can be regarded as a new highly sensitive photoconductor with a few interesting properties. The authors thank V. YE. Lashkar'ov (Lashkarev) and M. K. Sheynkman for interest in the work and advice. Orig. art. has: 2 figures. [02]

SUB CODE: 20/
ATD PRESS: 4 217

SUBM DATE: 13Sep65/

ORIG REF: 004/

OTH REF: 003

Card 2/2

BILYE

see BILIK

BILYK, A.A.

Some problems of the salt dome tectonics of the Dnieper-Donets
Lowland. Trudy VNIIGAZ no. 14:18-42 '62. (MIRA 15:5)
(Dnieper-Donets Lowland—Salt domes)

BILYK, B.V., assistant

Studying the evenness of the pavement of mountain logging
roads. Les., bum. i der. prom. no.1:40-45 '65.

(MIRA 18:12)

БІЛІК, Д. П.

БІЛІК, Д. П.

Min Higher Education Ukrainian SSR. Odessa Agricultural Inst. Odessa, 1956.

БІЛІК, Д. П.- "The intervals, methods, and norms for sowing rice when cultivated with periodic irrigation." Min Higher Education Ukrainian SSR. Odessa Agricultural Inst. Odessa, 1956.
(Dissertation for the Degree of Candidate In Agricultural Sciences.)

SO: Knishnyalltopis' No. 13, 1956.

SHEVCHENKO, N.Ya.; BILYK, D.P.

Microclimate in the herbage of a corn field and its relation
to different planting methods. Trudy OGMI no.18:29-41 '59.
(MIRA 13:5)

(Corn (Maize)) (Microclimatology)
(Plants, Space arrangement of)

BILYK, Dmitriy Petrovich, kand. sel'khoz. nauk; KALIBERDA, Vasil'y Lukich, dotsent, agronom; TEMCHENKO, Lavrentiy Vasil'yevich, kand. sel'khoz. nauk; VINNITSKIY, T.[Vinnyts'kyi, T.], red.; MOLCHANOVA, T., tekhn. red.

[Corn in green fallows] Kukurudza v zelenykh parakh. Odesa, Odes'ke knizhkovye vyd-vo, 1960. 55 p. (MIRA 14:7)

1. Odeskiy sel'skokhozyaystvennyy institut, Predsedatel' ispolnitel'nogo komiteta Saratskogo rayonnogo Soveta deputatov trudyashchikhaya (for Kaliberda)

(Corn (Maize))

(Fallowing)

BILYK, G.I. [Bilyk, H.I.]

Research activity of the Botanical Institute of the Academy of
Sciences of the Ukrainian S.S.R. in 1959. Ukr.bot.zhur. 17 no.2:113-
116 '60. (MIRA 13:11)

(Ukraine--Botanical research)

BILYK, G.I. [Bilyk, H.I.]

History of the study of halophilous vegetation in the
Ukrainian S.S.R. Ukr.bot.shur. 17 no.3:87-97 '60.
(MIRA 13:7)

1. Institut botaniki AN USSR, otdel geobotaniki.
(Ukraine--Halophytes)

BILYK, G.I.

BILYK, G.I. [Bilyk, H.I.]

Fedor Aleksandrovich Grin'; obituary. Ukr. bot. zhur. 17 no.4:93-96 '60. (MIRA 13:9)

(Grin', Fedor Aleksandrovich, 1902-1960)

BILYK, G.I. [Bilyk, H.I.]

Elizaveta Modestovna Bradis; on her 60th birthday. Ukr. bot.
shur. 17 no.6:100-102 '60. (MIRA 14:3)
(Bradis, Elizaveta Modestovna, 1900-)

BILYK, G.I. [Bilyk, H.I.]

Research work of the Botanical Institute of the Ukrainian Academy
of Sciences. Ukr. bot. zhur. 18 no. 2:99-101 '61. (MIRA 14:5)
(Ukraine—Botanical research)

• BONDARCHUK, V.G., akademik, otv. red.; KOROLEVA, M.A., glav. red.;
 KOCHUBEY, A.D., red.; RADUL, M.M., kand. geogr. nauk, red.;
BILYK, G.I., kand. biol. nauk, red.; GEYDEMAN, T.S., kand.
 biol. nauk, red.; ZAMORIY, P.K., doktor geol.-min. nauk, prof.,
 red.; KUGUKALO, I.A., kand. ekon. nauk, starshiy nauchnyy stor.,
 red.; MARINICH, A.M., dotsent, red.; MUKOMEL', I.F., kand. geogr.
 nauk, starshiy nauchnyy sotr., red.; PRIKHOT'KO, G.F., kand.
 geogr. nauk, red.; ROMANENKO, I.N., akademik, red.; TAL'NOVA,
 N.N., red.; BYUSHGENS, L.M., kand. geogr. nauk, retsenzent;
 DIDKOVSKIY, I.Ya., kand. geol.-miner. nauk, retsenzent;
 KEL'NER, Yu.G., kand. geogr. nauk, retsenzent; NADEZHIN, P.F.,
 retsenzent; NIKISHOV, M.I., doktor tekhn. nauk, retsenzent;
 PIDOPLICHKO, I.G., retsenzent; KURDINA, G.P., red.-kartograf;
 RACHINSKAYA, Z.P., red.-kartograf; SLEPTSOVA, L.M., redaktor-
 kartograf.

[Atlas of the Ukrainian S.S.R. and the Moldavian S.S.R.] Atlas
 Ukrainskoi SSR i Moldavskoi SSR. Moskva, 1962. vi p. 90 p.
 of col.maps.

(MIRA 15:5)

(Continued on next card)

BONDARCHUK, V.G.— (continued) Card 2.

1. Russia (1923— U.S.S.R.) Glavnoye upravleniye geodezii i kartografii. 2. Akademiya nauk USSR, direktor Instituta geologicheskikh nauk Akademii nauk USSR (for Bondarchuk). 3. Nachal'-nik kartosostavitel'skogo tsekha fabriki No.1 (for Koroleva). 4. Zamestitel' predsedatelya Gosudarstvennogo planovogo komiteta Soveta Ministrov USSR (for Kochubey). 5. Direktor Instituta ekonomiki Akademii nauk Moldavskoy SSR (for Radul). 6. Zamestitel' direktora po nauchnoy rabote Instituta botaniki Akademii nauk USSR (for Bilyk). 7. Direktor Botanicheskogo sada Akademii nauk Moldavskoy SSR (for Geydeman). 8. Zaveduyushchiy kafedroy geomorfologii Kiyevskogo gosudarstvennogo universiteta (for Zamoriy). 9. Institut ekonomiki Akademii nauk USSR (for Kugukalo). 10. Zaveduyushchiy kafedroy fizicheskoy geografii Kievskogo gosudarstvennogo universiteta (for Marinich). 11. Ukrainskiy nauchno-issledovatel'skiy institut ekonomiki i organizatsii sel'skogo khozyaystva (for Mukomel'). 12. Direktor Ukrainskogo nauchno-issledovatel'skogo gidrometeorologicheskogo instituta (for Prihot'ko).

(Continued on next card)

· BONDARCHUK, V.G.---(continued) Card 3.

13. Direktor Ukrainakogo nauchno-issledovatel'skogo instituta ekonomiki i organizatsii sel'skogo khozyaystva, Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Romanenko). 14. Direktor fabriki No.1 (for Tal'nova). 15. Chlen-korrespondent Akademii nauk USSR (for Pidoplichko).

(Ukraine--Maps)

(Moldavia--Maps)

BILYK, G.I. [Bilyk, H.I.]; BRADIS, Ye.M. [Bradis, IE.M.]

Geobotanical regionalization of the Ukrainian S.S.R. Ukr. bot.
zhur. 19 no.4:23-32 '62. (MIRA 15:9)

1. Institut botaniki AN UkrSSR, otdel geobotaniki.
(Ukraine--Phytogeography)

BILYK, Gavriil Ivanovich [Bilyk, H.I.]; SKUTS'KA, N.P., red.;
MATVIYCHUK, O.O., tekhn. red.

[Vegetation of saline soils of the Ukraine, its development,
use and improvement] Roslynnist' zasolenykh hruntiv Ukrainy,
ii rozvytok, vykorystannia ta polipshennia. Kyiv, Vyd-vo AN
URSR, 1963. 296 p. (MIRA 16:12)
(Ukraine--Halophytes)
(Ukraine--Pastures and meadows)

BILYK, G.I.[Bilyk, H.I.]

Saline meadows of the left-bank area of the Dnieper Valley,
their efficient use and improvement. Ukr. bot. zhur. 20 no.2:
87-95 '63. (MIRA 16:6)

1. Institut botaniki AN Ukr-SSR, otdel geobotaniki.
(Dnieper Valley--Pastures and meadows)

BILYK, G.I.[Bilyk, H.I.]; POLUBOYARINOV, I.I.[Poluboiarynov, I.I.];
SHELYAG-SOSONKO, Yu.R.[Sheliab-Sosonko, IU.R.]

In memory of Volodymyr Oleksiiovych Povarnitsyn. Ukr. bot.
shur. 20 no.2:110-114 '63. (MIRA 16:6)

(Povarnitsyn, Volodymyr Oleksiiovych, 1899-1962)

BILYK, G.I. [Bilyk, H.I.]; TKACHENKO, V.S.

Grindelia squarrosa (Pursh.) Dunal. in the floodlands of the Northern
Donets River. Ukr. bot. zhur. 20 no.4:108-110 '63. (MIRA 17:4)

1. Institut botaniki AN UkrSSR, otdel geobotaniki.

L 37001-66 EWP(k)/EWT(d)/EWT(m)/EWP(h)/T-2/EWP(w)/EWP(v) EM

ACC NR: AP6021488

SOURCE CODE: UR/0413/66/000/011/0140/0140

INVENTOR: Belous, Yu. V.; Bilyk, G. P.; Beketova, L. A.; Levochkin, P. A.

ORG: none

TITLE: Aircraft doors Class 62, No. 182527

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 140

TOPIC TAGS: auxiliary aircraft equipment, ~~aircraft landing gear~~, aircraft door,
AIRFRAME COMPONENT

ABSTRACT: An Author Certificate has been issued for aircraft doors, such as under-carriage doors, consisting of hinge plate joints, door jack (3), push rods (5), and

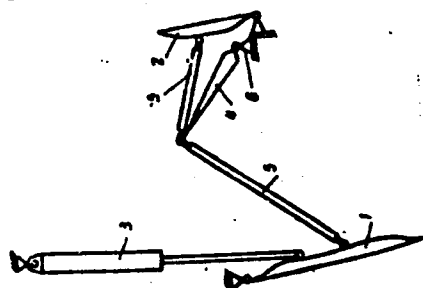


Fig. 1. Aircraft doors

1 - Door; 2 - balance; 3 - door jack;
4 - rocker arm; 5 - push rods; 6 - support.

Card 1/2

UDC: 629.13.014.69

L 37001-66

ACC NR: AP6021488

rocker arm (4). In order to decrease suction forces in flight and to improve the aerodynamic performance of the aircraft, the doors are equipped with aerodynamic balances (2), also in the form of doors, which are hinged to a fixed part of the aircraft and kinematically connected with the doors (1) by push rods (5) through the rocker arms (4). In addition the kinematic connection guarantees the balances' deflection in the opposite direction from the deflection of the doors. [WS]

SUB CODE: 01/ SUBM DATE: 10Jun65/ ATD PRESS: 5135

Cord 2/2 *[Signature]*

L 08055-67 EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) JD/JQ

ACC NR: AP603228' (A) SOURCE CODE: UR/0226/66/000/009/0043/0049

AUTHOR: Bondarenko, V. P.; Bilyk, I. I.; Shlyuko, V. Ya.

ORG: Kiev Order of Lenin Polytechnic Institute (Kiyevskiy ordena Lenina politekhnicheskiy institut)

TITLE: Investigation of conditions of alloy preparation in the system yttrium boride—lanthanum boride

SOURCE: Poroshkovaya metallurgiya, no. 9, 1966, 43-49

TOPIC TAGS: boron, solid solution, crystallization, alloy, yttrium, lanthanum, yttrium boride, lanthanum boride, hexaboride

ABSTRACT: A study has been made to investigate the effect of temperature and duration of sintering on the process of alloy preparation in the YB_6 — LaB_6 system during combined reduction of oxides by boron in vacuum. It was found that the preparation of homogeneous solid solutions of hexaborides is possible with the presence in the charge of the appropriate metal instead of one of the oxides of hexaboride. It is suggested that the main accelerating factor is the formation of a

Card 1/2

L 08055-67

ACC NR: AP6032297

close contact between the hexaboride particles owing to their combined crystallization. Orig. art. has: 5 figures and 7 formulas. [Based on authors' abstract]

SUB CODE: 11/ SUBM DATE: 25May65/ ORIG REF: 006/ OTH REF: 002/

Card 2/2 *pla*

BILYK, L.G. [Bilyk, L.H.]

Identification of soybean mosaic viruses in the Ukraine.
Mikrobiol. zhur. 27 no.5:35-40 '65.

Distribution of soybean viruses in the Ukraine. Ibid.:40-45
(MIRA 18:10)

1. Institut mikrobiologii i virusologii AN UkrSSR.

L 39075-56 EWT(d)/FSS-2 GD

ACC NR: AT6021046

SOURCE CODE: UR/0000/65/000/000/0054/0061

AUTHOR: Bilyk, M. G. (L'vov); Svenson, A. N. (Candidate of technical sciences; L'vov)

ORG: none

TITLE: Conditions of optimal transmission of two combined signals 4

SOURCE: AN UkrSSR. Metody otbora i peredachi informatsii (Methods of selecting and transferring information). Kiev, Naukova dumka, 1965, 54-61

TOPIC TAGS: multiple beam transmission, amplifier design

ABSTRACT: The optimal transmission of a linear combination of two signals with different constraints is considered by the method of Lagrange multipliers. The input signals are S_1 and S_2 , and the output signals are S_1 and $S_3 = aS_1 + S_2$. The question under investigation is to determine the optimal gains of the transmitting amplifiers k_1 and k_2 for signals S_1 and S_2 respectively. Six different problems are solved: 1. Performance index--maximal signal to noise power ratio for S_3 ; constraint--limited sum of amplitudes of S_1 and S_2 , i. e. $k_1 + k_2 = c$. 2. Performance index--same as in 1; constraint--limited sum of powers of S_1 and S_2 , i. e. $k_1^2 + k_2^2 = c$. 3. Performance index--maximal ratio of the total power of S_1 and S_2 to the total noise power; constraint--same as in 2. 4. Performance index--same as in 3; constraint--same as in 1. 5. Performance index--maximal informational contents of the ensemble of signal, using Shan-

Cord 1/2

L 39075-66

ACC NR: AT6021046

non's formula; constraint--same as in 2. 6. Performance index--same as in 5; constraint--same as in 1. Expressions for optimal k_1 and k_2 as a function of α and σ , are derived for each case. Orig. art. has: 1 figure, 15 formulas.

SUB CODE: 17,09/

SUBM DATE: 20Nov65

Card 2/2 *MLP*

WELK, W.A., kand.khimicheskikh nauk (Odessa)

Characteristics of the chemical composition of therapeutic waters of the Beresov Ba type. Vrach.delo no.11:150-151
N '62. (MIRA 16:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut kurortologii i fizioterapii.
(BEREZOVKA (KHARKOV PROVINCE)---MINERAL WATERS)

STERLIN, B.P.; BILYK, O.D.

Marker horizons of Mesozoic deposits in the Dnieper-Donets graben
and outlying northwestern regions of the Donets folded structure.
Trudy VNIGNI no.12:124-139 '58. (MIRA 12:3)

(Dnieper Lowland--Geology, Stratigraphic).

(Donets Valley--Geology, Stratigraphic)

BILYK, Oleg Denisovich; KANSKIY, Nikolay Yeliseyevich; MAKRIDIN, Vladimir Petrovich; STERLIN, Boris Pavlovich; SUKHORSKIY, Roman Filippovich; LAPKIN, I.Yu., otv.red.; KURILOVA, T.M., red.; BELOKON', V.V., tekhn.red.

[Facies and paleogeography of Jurassic sediments in the oil- and gas-bearing area of the eastern Ukraine] Fatsii i paleogeografiia iurskikh otloshenii Vostochno-Ukrainakogo gazoneftenosnogo basseina. Khar'kov, Izd-vo Khar'kovskogo gos.univ., 1960. 71 p. (MIRA 14:4)

(Ukraine--Paleogeography) (Ukraine--Geology, Stratigraphic)

BILYK, O.D.

Some data on the geological development of the Chernigov salient
in the Mesozoic. Trudy VNIIGAZ no.14:201-205 '62. (MIRA 15:5)
(Dniiper-Donets Lowland--Geology, Structural)
(Pripet Valley--Geology, Structural)

BILYK, O.D.

New data on the Pre-Jurassic relief in the northwestern part of the Dnieper-Dnests Lowland. Sov.geol. 6 no.8:95-98 Ag '63. (MIRA 16:9)

1. Ukrainskiy nauchno-issledovatel'skiy geologerazvedochnyy institut.
(Dnieper-Dnests Lowland—Landforms)

BILYK, O.D.; MAKRIDIN, V.P. [Makrydin, V.P.]; MIGACHEVA, Ye.Ye. [Myhachova, Ie.Ie.]; STERLIN, B.P.; SUKHORSKIY, R.F. [Sukhors'kyi, R.F.]

Stratigraphy of Jurassic sediments in the eastern Ukraine.
Geol. zhur. 23 no.5:102-103 '63. (MIRA 16:12)

1. UkrVNDIGaz.

ARSIRIY, Yu.A.; BILYK, O.D.

Oil and gas potentials of the Lower Permian sediments of the
Dnieper-Donets Lowland in the light of recent data on their
distribution. Trudy UkrNICRI no.5:23-29 '63.

(MIRA 18:3)

BILYK, V.D., Cand Med Sci -- (diss) "Data for
the ~~Pathology~~^{physiology} and treatment of chorea minor."
Kiev, 1958, 23 pp (Kiev Order of Labor Red Banner
Med Inst im Academician A.A. Bogomolets) 200 copies
(KL, 23-58, 111)

- 122 -

AL'PEROVICH, P.M.; BILYK, V.D.; RUDAYA, B.I.

Clinical aspects of the hyperkinetic form of present-day epidemic encephalitis. Zhur. nevr. i psikh. 64 no.3:340-345 '64. (MIRA 17:5)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. P.M. Al'perovich) meditsinskogo instituta, nevrologicheskoye otdeleniye Vinnitskoy psikhonevrologicheskoy bol'nitsy (glavnyy vrach R.Ya. Mar'yanchik).

БІЛЫК, V. YA

СЛИТОК И СВОЙСТВА СТАЛИ

Д.Ф.Чернов

Исследования влияния электромагнитного облучения на свойства слитков из высоколегированной стали.

К.С.Прохоров
Л.И.Кузнецов

Распределение микроструктурных параметров в слитках из стали.

Ю.А.Николаев
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В.В.Виноградов

Изучение влияния температуры и скорости охлаждения на свойства слитков из стали.

В.Г.Гурьев

Структурные изменения в процессе охлаждения слитков из стали.

С.А.Медведев

Влияние температуры слитков на свойства из стали.

В.К.Михайлов

Влияние температуры слитков на свойства из стали.

А.С.Лобов

Влияние температуры слитков на свойства из стали.

В.Г.Кузнецов

Влияние температуры слитков на свойства из стали.

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В.М.Тарасов

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Ю.Д.Сидоров

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Влияние температуры слитков на свойства из стали.

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Влияние температуры слитков на свойства из стали.

А.Н.Морозов

Влияние температуры слитков на свойства из стали.

В.С.Романов

Влияние температуры слитков на свойства из стали.

В.А.Морозов

Влияние температуры слитков на свойства из стали.

В.П.Морозов

Влияние температуры слитков на свойства из стали.

Report submitted for the 5th Physical Chemical Conference on Steel Production, Moscow— 30 Jan 1959.

PHASE I. BOOK EXPLOITATION 824/3559

Abdullayev, A.S. 1958. Institut metallurgii. Nauchnyy sovet po problemam zharko-
prochnosti sployev

Iskovedovaniya po zharkoпрочным sployam, t. 5 (Investigations of Heat-Resistant
Alloys, Vol. 5) Moscow, Izd-vo AN SSSR, 1979. 423 p. Errebo ally issledovaniya.
2,000 copies printed.

MA. of Publishing House: V.A. Kilmov; Tech. Ed.: I.P. Kuznetsov; Editorial
Board: I.P. Kuznetsov, Academician, O.V. Kuznetsov, Academician, A.P. Agayev,
Corresponding Member, USSR Academy of Sciences (deap. Ed.), I.A. Gilya,
I.M. Pavlov, and I.P. Pavlov, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgical engineers, research workers
in metallurgy, and may also be of interest to students of advanced courses
in metallurgy.

CONTENTS: This book, consisting of a number of papers, deals with the proper-
ties of heat-resisting metals and alloys. Each of the papers is devoted to
the study of the factors which affect the properties and behavior of metals.
The effects of various elements such as Cr, Mo, and V on the heat-resisting
properties of various alloys are studied. Deformability and variability
of certain metals as related to the thermal conditions are the object of
another study described. The problems of hydrogen embrittlement, diffusion
and the deposition of ceramic coatings on metal surfaces by means of
electrophoresis are examined. One paper describes the development of methods
used for growing monocrystals of metals. Research results on the properties
examined and evaluated. The results of studies of interatomic bonds
and the structure of metals are also presented. The book contains a number
of tables and illustrations. The book is written in Russian. References are
given at the end of each article.

Verbitskiy, Y.I., and E.Y. Foyer. Study of Certain Problems of the Temper- ture Dependence of the Viscosity of Steel from the Viewpoint of the Disloca- tion Theory	150
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БІЛҮКНІ, ВІЯ

PLANS & SPECIFICATIONS **NOV/4/06**

Abstracts not sent. Summary sent to problems stenographic splavov
Zashchitnyy po stenograficheskoy splavov, tom 6 (Transliterations of Steno-
graphic Alphabet, Vol. 6) Moscow, 1960. 219 p. Cyrillic also translated.
3,000 copies printed.

Sponsorship Agency? Abroaders must seek. Institute evaluating Soviet A. A. Baykov. Secretary wrote po problems zharoprosyayia splyvov.

Bacterial Insects L. P. Martin (Drexel Academies, D. V. University, N. V. Army, Corresponding Member, Academy of Sciences USSR (Bary. M.), L. A. Olsky, L. M. Pavlovsky, and L. P. Zeldin, Academies of Chemical Sciences) M. of Publishing House V. A. Il'inskiy, Tech. M.: S. O. Zhukovskaya.

REMARK: This book is intended for research workers in the field of physics or materials and for metallurgists, particularly those working on heat-resistant alloys.

CONCRETE. An collection of 15 articles deals with various problems in the production of non-ferrous alloys. Special attention is paid to the production of deformation of such metals as aluminum, copper, iron, and nickel. Various defects and failures of metals are analyzed, and means for increasing their ductility and plasticity are described. Among the special problems discussed are electrolytic conductivity of iron-nickel alloys in the solid state; the mobility of atoms in aluminum alloys, depending upon defects of their crystalline structure; the kinetics of change in mechanical properties of the intermetallic compound transformation of steel bodies, etc. In particular, the irreversible thermal transformation of steel bodies is discussed. Various alloys are mentioned. References follow each article.

Cartierman, A.B., J.D. Babin, and J.M. Emsw. Investigation of the
and structure of some Texas lakes, depending on their
composition

Wright, J.L., and V.A. Tompkins. Effect of structure stability on
leaf resistance

Smalley, J. L., Pyration, and G. F. Oakburne. Effect of the Time Factor on the Character of the Magnet Compaction and Influence of the Two-Component System K₂Cr₂O₇ - V - Si - Al Alloy

Swierzbew, J.F., and V.A. Kiknashvili. The Present State of the Problem of Irreversible Thermal Deformation of Solid Bodies

Trilobus, D. L. Four Periods of Macroscopic Fluv, Cretag, and Paleozoic

Alfaro, E.B., A.E. Strobl, and V.P. Koschmider. Electron Microscopic Investigation of Deformation and Failure of High-Alloy Steels

Mathematical, Phys., E.O. GERSHTEIN, 1-11 V. 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2

Metalla, G.V., and E.B. Medendorp. Investigation of the Fine Structure and Bonding in Fe₃-Ni₃Si₂ Alloys

STANDARD LIBRARY OF CONGRESS

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1

1. *Chlorophyll a* (Chl *a*)

512/4A, V. 4A

Leningrad. Politechnicheskii Institut	
PRAISE I BOOK EXPLANATION 80V/4199	
Bozhenko's doklady, liyaznyy polirovatsya; trudy nauchno-issledovatel'skoy kontseptsii (recent achievements in founding: Transactions of the Scientific and Technical Conference of Schools of Higher Education) Moscow, Mashin, 1990. 336 p. Krasa slip inserted. 4,000 copies printed.	
Prof. Ed.: Yu. A. Rezhendri, Doctor of Technical Sciences, Professor; Ed.: N. O. Gubarevich, Doctor of Technical Sciences, Professor, and L. V. Kuznetsov, Doctor of Technical Sciences, Professor, Mashin Building (Leningrad Department, Mashin); Ed.: P. P. Kuznetsov, Professor; Ed.: Yu. A. Rezhendri, and L. V. Kuznetsov.	
FOREWORD: This book is intended for the technical personnel of foundries. It may be used by students of the field. COVERAGE: This collection of articles discusses problems in founding processes. Individual articles treat the melting of alloys and their alloys, mechanization and automation of casting processes, aspects of the manufacture of steel, cast iron, and nonferrous metal castings. No personalities are mentioned. References accompany individual articles.	
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S/137/61/000/002/045/046
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 2, p. 48 # 21397

AUTHOR: Bilyk V. Ya

TITLE: Method of Measuring the Temperature of Molten Metals Under Laboratory Conditions

PERIODICAL: V sb. "Sovrem. dostizh. liteyn. proiz-va", Moscow-Leningrad, Mashgiz, 1960, pp. 169-177

TEXT: Pyrometric methods are analyzed which are employed at the foundry laboratory of LPI imeni Kalinin when investigating foundry properties and regularities of alloys solidification. A description is given of the design of thermo-couples used to check the temperature of molten metals and for thermal analysis. Results are given from investigations of correlations between the temperature of liquid metals and the output waste castings. There are 6 references.

L. F.

Translator's note: This is the full translation of the original Russian abstract

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AUTHOR: Bilyk, V. Ya.

TITLE: Determination of the Overheating of Molten Metal
Above the Liquidus Curve

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya
metallurgiya, 1960, Nr 1, pp 191-195 (USSR)

ABSTRACT: The excessive temperature, i.e., the difference between
the actual temperature and its value at the mp of an
alloy, controls the state and castability of the melt
directly and, consequently, is more important than the
total temperature value. The excessive, in other words
hyperliquidus, temperature can simply be found on a
chart that considers the liquidus curve a zero line and
hence permits direct reading of the hyperliquidus
temperature for any composition of a particular alloy.
If the precise liquidus temperature of an alloy must
first be determined, the foundry laboratory of the
Leningrad Polytechnic Institute (LPI) casts about 1.5
kg of the freshly molten metal into a sand mold and

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Determination of the Overheating of Molten
Metal Above the Liquidus Curve

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measures the dropping temperatures by a thermocouple until the steady-state temperature at the liquidus point is obtained. The procedure takes about 2 min. The measurement errors do not exceed $\pm 4-5^{\circ}\text{C}$, and the errors in the determination of the hyperliquidus temperature remain within $\pm 7\%$ when $t - t_0$, as usual, does not exceed 150°C . Accuracy is important, since the available data proves that reject z increases hyperbolically from a few % to 100% of the product with the drop of casting temperature t from about 30 to 50°C above the liquidus point to the latter's vicinity. The reject increase Δz with the temperature drop Δt can be expressed by:

$$\frac{\Delta t}{t - t_0} = - \frac{\Delta z}{z - z_0} \quad (2)$$

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where z is % reject when melt is cast at temperature t ;
 t_0 is liquidus temperature; z_0 is minimum reject inevitable

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A006/A101

AUTHOR: Bilyk, V. Ya.

TITLE: On the method of thermographic investigations of the solidifying of alloys

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 57 - 58, abstract 12V349 ("Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t" 1960, no. 11, 52 - 63)

TEXT: The new method of thermal analysis is characterized by the transition to non-relative measurements. Instead of using a standard in each test, strictly specified geometrical parameters of the specimen (its outline, dimensions and the location of the thermocouple) and heat liberation conditions are introduced. The molten metal is cast into a cylindrical mold made of conventional mold mass with one or several mounted thermocouples and the cooling curves obtained are recorded, which are used to determine not only the critical temperatures but also the duration of all stages of solidifying. To fill the mold, 8 kg of steel are needed. This is connected with the fact that the thermocouple in the specimen is a relatively small foreign body which slightly deforms the temperature field of the

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AUTHOR: Bilyk, V. Ya.

TITLE: Basic parameters in the solidifying of carbon, chromium, manganese and silicon steels

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 58, abstract 12V351 ("Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t", 1960, no. 11, 99 - 105)

TEXT: The author investigated grade 10, 15, 65 steels, Armco, 10 XCHD (10KhSND), 15XCHD (15KhSND), 65 F (65G), transformer and steel grades additionally alloyed with Cr, Mn or Si respectively. The alloys were top cast into cylindrical sand molds of 60 - 100 mm in diameter and into thick-walled metallic and hollow water-cooled molds of 100-mm in diameter. With the aid of thermocouples, mounted along the axis of the molds from underneath (protected by quartz tips) cooling curves were plotted. In all the alloys a marked interruption was observed at the liquidus. The solidus was marked as a break point on the curve toward the side of accelerated cooling rate. On each cooling curve of Cr and Mn steels, 4 critical points were observed. The second (after the liquidus) and the

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Basic parameters in the...

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third point are revealed from the sharp break of the curve with a higher cooling rate and the fourth from the break with reduced dropping rate of the temperature. The second point can be considered in accordance with pseudobinary diagrams of Fe-Cr-C and Fe-Mn-C as the stop in singling out of crystals and the beginning of a peritectic reaction. The third point can be considered as a solidus. The exothermic effect in point 4 is caused by the beginning $\delta \rightarrow \gamma$ transformation in solid state of δ crystals which were initially singled-out but did not enter into a peritectic reaction. In Si-steel point 4 was not observed. Duration of solidification was determined for alloyed steels in sand molds, metallic and water cooled molds. Cr and Mn somewhat reduce the total duration of solidifying; Si, on the contrary, causes its noticeable increase. Values are also given of solidification constants ($\text{cm}/\text{min}^{1/2}$) for carbon and alloyed steels. ✓

P. Arsent'yev

[Abstracter's note: Complete translation]

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BILYK, V YU.

PHASE I BOOK EXPLOITATION SOV/5458

Girshovich, Naum Grigor'yevich, Doctor of Technical Sciences, Professor, ed.

Spravochnik po zhugunnomu lit'yu (Handbook on Iron Castings) 2d ed., rev. and enl. Moscow, Mashgiz, 1961. 800 p. Errata slip inserted. 16,000 copies printed.

Reviewer: P. P. Berg, Doctor of Technical Sciences, Professor; Ed.: I. A. Baranov, Engineer; Ed. of Publishing House: T. L. Leykina; Tech. Eds.: O. V. Speranskaya and P. S. Frumkin; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This handbook is intended for technical personnel at cast-iron foundries. It may also be of use to skilled workmen in foundries and students specializing in founding.

COVERAGE: The handbook contains information on basic problems in the modern manufacture of iron castings. The following are discussed: the composition and properties of the metal; the making of molds; special casting methods; the charge preparation; melting

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Handbook on Iron Castings

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and modifying the cast iron; pouring, shaking out, and cleaning of castings; heat-treatment methods; and the inspection and rejection of castings. Information on foundry equipment and on the mechanization of castings production is also presented. The authors thank Professor P. P. Berg, Doctor of Technical Sciences, and staff members of the Mosstankolit Plant, headed by the chief metallurgist G. I. Kletskin, Candidate of Technical Sciences, for their assistance. References follow each chapter. There are 287 references, mostly Soviet.

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ACCESSION NR: AT4037525

S/2563/63/000/224/0061/0083

AUTHOR: Bilyuk, V. Ya.

TITLE: Critical temperatures and solidification periods of heat resistant alloys

SOURCE: Leningrad. Politekhnikheskiy institut. Trudy*, no. 224, 1963, Lit-eynyye svoystva zharoprochnykh splavov (Castability of heat-resistant alloys), 61-83

TOPIC TAGS: castability, heat resistant alloy, iron based alloy, nickel based alloy, austenitic steel, Nichrome alloy, high alloy steel, alloy composition, alloy No. 3, alloy No. 6, alloy No. 300, alloy Kh1, alloy Kh32, alloy LA3, alloy EI612, alloy solidus temperature, alloy liquidus temperature, alloy solidification heat, alloy thermal analysis, casting thermal analysis, alloy 111

ABSTRACT: Castings, rather than standard samples, of basic systems and commercial alloys (see Nekhendzi, Yu. A., p. 9-23, this same book, for all compositions) were used in a thermal analysis carried out as part of an experimental series on the castability of heat resistant alloys. Four basic molds (see Figure 1 in the Enclosure) and Pt-Rh to Pt thermocouples shielded in fused quartz

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were used to produce and measure various rates of cooling and insure the best possible reduction of thermal inertia in the thermocouples. The plotted cooling curves served to determine the critical temperatures (1495-1480C for 12/20/0 and 1475-1455C for 35/20/0 to 1405-1360C and 1372-1360C for 12/20/80 and 35/20/80, respectively), solidification periods (varying with content of Ni in a pattern inverse to the effect on critical temperatures) and solidification heats (peaks for 35/20/80 and 12/20/40) of basic systems and commercial alloys (1415-1380 to 1335-1245C; 50 °/min for cold forms; 15 °/min for hot forms; mean quadratic deviation for all commercial alloys $\pm 15\%$ in cooling rate, solidification heats ranged from 64 to 84 cal/g). It is concluded that the binding energy of the basic systems decreases linearly in relation to the C content. Effects of alloying element additions on these characteristics are described. Orig. art. has: 5 tables, 11 graphs and 20 formulas.

ASSOCIATION: Leningradskiy politekhnicheskii institut im. M. I. Kalinina
(Leningrad Polytechnical Institute)

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ENCLOSURE: 02

Fig. 1 Standard casting molds used in alloy studies and methods of shielding thermocouples.

- 1 - sand mold, 50°C/min;
- 2 - cast iron mold, 150-300°/min;
- 3 - staggered sand mold, 70°/min;
- 4 - mold for combined temperature and time studies;
- 5 and 6 - placement of thermocouples

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BILYK, V.Ya.

Pyrometry in the investigation of founding properties of heat-resistant alloys. Trudy LPI no. 224:217-228 '63. (MIRA 17:9)

NEKHENDZI, Yu.A.; GIRSHOVICH, N.G.; GRUZYKH, I.V.; BILYKH, V.Ya.;
KUPTSOV, I.V.; SIMANOVSKIY, M.P.; ANTIPOV, M.V.

Foundry properties of heat-resistant alloys. Issl. po zharopr.
splav. 6:308-313 '60. (MIRA 13:9)
(Heat-resistant alloys) (Founding)

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SOV/68-58-10-13/25

AUTHORS: Yastrzhem'skaya, O.V.; Andreyeva, V.S.; Nenich, V.N., Royter, M.K., Drinfel'd, P.Ye., and Bilym, L.M.

TITLE: From Experience of Putting the Indene-coumarone Resin Plant on the Kadiyevka Coking Works into Operation (Opyt puskha i raboty tsekha inden-kumaronovykh smol na Kadiyevskom koksokhimicheskom zavode)

PERIODICAL: Koks i Khimiya, 1958, Nr 10, pp 40 - 44 (USSR)

ABSTRACT: The plant was put into operation in 1955. The scheme of the operation of the plant as designed is shown in Figure 1 and changes introduced are shown in Figures 2 and 3. Aluminium chloride is used as a catalyst in a proportion of 0.35% of the raw material. The polymerisation process begins at 20 - 30 °C and is finished at 110 °C. The main difficulties were encountered in the distillation plant due to the incorrect design of the evaporators and due to an excessive corrosion of the condenser. All resin pipe-lines were found to be too long and complicated. Cooling drums for resin were insufficient. The initial losses of hydrocarbons amounted to 18-20% and were reduced (by unspecified methods) to

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